

SOLAR CELL ASSEMBLY FOR USE IN AN OUTER SPACE ENVIRONMENT  
OR A NON-EARTH ENVIRONMENT

ABSTRACT

[0058] A solar cell assembly for use in an outer space environment or a non-Earth environment and a method for controlling a temperature of the solar cell assembly are provided. The solar cell assembly includes a photovoltaic conversion layer configured to produce an electrical current when receiving photons on a first side of the photovoltaic conversion layer. The solar cell assembly further includes a thermally conductive layer thermally coupled to a second side of the photovoltaic conversion layer. Finally, the solar cell assembly includes a heat radiating layer coupled to the thermally conductive layer to radiate heat energy from the photovoltaic conversion layer.